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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,687	03/07/2000	John Dung-Quang Ly	2705-401	9101

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EXAMINER
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WON, MICHAEL YOUNG

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/520,687

Applicant(s)

LY, JOHN DUNG-QUANG

Examiner

Michael Y. Won

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 8-13, 19-22 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-13, 19-22 and 24-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/30/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to the Request for Continued Examination and the amendment filed August 30, 2006.
2. Claims 1-4, 8-13, 19-22, 24-26 have been amended and claims 5, 6, 14-18 and 23 have been cancelled.
3. New claims 27 and 28 have been added.
4. Claims 1-4, 8-13, 19-22, and 24-28 have been examined and are pending with this action.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 2, 4, 8-10, 12, 13, 19-22, and 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Wookey (US 6,085,244 A).

**INDEPENDENT:**

As per **claim 1**, Wookey teaches a system comprising:

a technical support center (see col.4, lines 4-10: "service center 101");

a packet switching network coupled to the technical support center by a first interface line (see Fig.1 and col.4, lines 13-16: "internet"); and

network devices (see col.4, lines 4-10: "monitored system 102") coupled to the packet switching network by a second interface line, the network devices capable of communicating network information to the technical support center through the packet switching network (see Fig.1 and col.4, lines 13-16: "internet"), each of the network devices including

at least one hardware subsystem (see col.3, lines 15-18: "hardware"),

at least one software subsystem (see col.3, lines 15-18: "software"), and

embedded software operable to collect and analyze status information from the at least one hardware subsystem and the at least one software subsystem to detect a problem with any one of the hardware and software subsystems or the second interface

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line (see col.4 lines 36-38: "using diagnostic tests and monitoring functions which include "modules" running on the monitored system" and col.6, lines 21-44: "remote monitoring software"),

the status information including error messages from any one of the hardware and software subsystems (see col.4, lines 31-36: "error messages"), each of the network devices capable of sending, in response to the detection of the problem, a first message to the technical center (see col.4, lines 48-53: "initiated by the monitored system") without interrupting the normal operation of the network device, the first message including the status information (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased burdens on the monitored system"; and col.15, lines 41-49: "to avoid affecting overall performance").

As per **claim 12**, Wookey teaches a network that can be coupled to a packet switching network by an interface line to communicate with a technical support center that is also coupled to the packet switching network (see Fig.1 and col.4, lines 13-16: "internet"), the network device comprising:

a hardware subsystem (see col.3, lines 15-18: "hardware");

a software subsystem (see col.3, lines 15-18: "software"); and

means for monitoring the status of the hardware and software subsystems and the interface line (see col.4, lines 31-36: "installed patches and revisions, hardware configuration"),

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the network device (see col.4, lines 4-10: "monitored system 102") capable of transmitting a first message to the technical support center (see col.4, lines 4-10: "service center 101") while maintaining normal operation (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased burdens on the monitored system"; and col.15, lines 41-49: "to avoid affecting overall performance"), the first message transmitted in response to the monitoring means detecting a problem with one of the hardware subsystem and the software subsystem (see col.5, lines 8-11: "alerts which may trigger other operations"), the first message transmitted prior to failure of the one of the hardware subsystem and the software subsystem (see col.5, lines 6-8: "attempt to recognize any future problems that may occur"), the first message notifying the technical support center of the problem and indicating the status of the hardware subsystem and the software subsystem (see col.5, lines 6-8: "collected data is post-processed at the service center").

As per **claim 24**, Wookey teaches a method comprising:

during the operation of a network device (see col.4, lines 4-10: "monitored system 102") that is capable of communicating with a technical support center (see col.4, lines 4-10: "service center 101") through a packet switching network (see Fig.1 and col.4, lines 13-16: "internet"), the network device including a hardware subsystem (see col.3, lines 15-18: "hardware") and a software subsystem (see col.3, lines 15-18: "software"), the network device coupled to the packet switching network by an interface

line, monitoring a status of the hardware and software subsystems and the interface line (see col.4, lines 31-36: "installed patches and revisions, hardware configuration");

during the operation of the network device, detecting a problem associated with one of the hardware subsystem, the software subsystem, and the interface line (see col.5, lines 8-11: "alerts which may trigger other operations");

during the operation of the network device and in response to detecting the problem, sending a first message from the network device to the technical support center (see col.5, lines 8-11: "alerts which may trigger other operations"), the first message notifying the technical support center of the problem, the first message further indicating the status of the hardware subsystem and the software subsystem, the first message sent without interrupting the operation of the network device (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased burdens on the monitored system"; and col.15, lines 41-49: "to avoid affecting overall performance"); and

during the operation of the network device, using the technical support center to diagnose the problem (see col.5, lines 6-8: "post-processed at the service center... attempting to recognize any future problems that may occur") without interrupting the operation of the network device (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased

burdens on the monitored system"; and col.15, lines 41-49: "to avoid affecting overall performance").

As per **claim 25**, Wookey teaches logic encoded in one or more tangible media for execution and when executed operable to:

monitor a status of a hardware subsystem, a software subsystem (see col.2, lines 54-57: "detect changes to hardware or software on the monitored computer"), and an interface line during an operation of a network device (see col.4, lines 4-10: "monitored system 102"), the hardware subsystem and software subsystem included in the network device, the network device coupled to a packet switching network through an the interface line (see Fig.1 and col.4, lines 13-16: "internet"), the network device capable of communicating with a during the operation of a network device that is capable of communicating with a technical support center through the packet switching network (see col.4, lines 4-10: "service center 101");

during the operation of the network device, detecting a problem associated with one of the hardware subsystem and the software subsystem (see col.5, lines 8-11: "alerts which may trigger other operations");

sending a first message to the technical support center for notification of the problem and to diagnose the problem (see col.5, lines 8-11: "alerts which may trigger other operations") without interruption to the operation of the network the first message (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased burdens on the monitored system"; and



col.15, lines 41-49: "to avoid affecting overall performance") indicating the status of the one of the hardware and software subsystems after the problem is detected but before failure of the one of the hardware and software subsystems (see col.5, lines 6-8: "attempt to recognize any future problems that may occur").

**DEPENDENT:**

As per **claim 2**, which depends on claim 1, Wookey further teaches wherein the packet switching network comprises the Internet and the first message comprises an email message (see col.4, lines 14-17).

As per **claim 4**, which depends on claim 1, Wookey further teaches wherein the first message is comprises a page (see Fig.8).

As per **claim 8**, which depends on claim 1, Wookey further teaches wherein the error messages identify a particular failure for the any one of the hardware and software subsystems (see col.7, liens 56-60).

As per **claims 9 and 19**, which respectively depends on claims 1 and 12, Wookey further teaches wherein the embedded software comprises:

a hardware health status monitor subsystem (see col.4, line 34: "hardware configuration");

a software health status monitor subsystem (see col.4, line 34: "list of installed patches and revisions"); and

a remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and the software health status monitor

subsystem, for collecting status information provided by the software health status monitor subsystem and the hardware health status monitor subsystem, and for detecting problems encountered by the hardware and software subsystems (see col.4, lines 31-44).

As per **claim 10**, which depends on claim 1, Wookey further teaches wherein the network devices are responsive to a second message generated by the technical support center for requesting further information regarding the problem (see col.5, lines 6-15).

As per **claim 13**, which depends on claim 12, Wookey further teaches wherein the network device is capable of operation without interruption (implicit: see claim 12 rejection above) while the technical support center diagnoses the problem with the one of the hardware subsystem and software subsystem (see col.5, lines 6-8).

As per **claim 20**, which depends on claim 19, Wookey further teaches the first message transmitted in response to the remote diagnostic embedded process subsystem detecting an error message from the one of the hardware subsystem and the software subsystem (see col.4, lines 31-36).

As per **claim 21**, which depends on claim 20, Wookey further teaches the first message transmitted in response to the remote diagnostic embedded process subsystem detecting criteria regarding the status of the network device (see col.4, lines 31-36).

As per **claim 22**, which depends on claim 12, Wookey further teaches the network device capable of sending additional information regarding the problem to the

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technical support center in response to receiving a second message from the technical support center, the second message generated by the technical support center in response to the first message (see col.5, lines 6-15).

As per **claim 26**, which depends on claim 9, Wookey teaches of further comprising a memory monitoring subsystem for monitoring a memory included in the network devices, the memory monitoring subsystem coupled to the remote diagnostic embedded process subsystem (see col.5, line11-15 and col.17, lines 40-46).

As per **claim 27**, which depends on claim 2, Wookey further teaches the technical support center comprising:

a user interface capable of displaying information communicated from the network devices (see col.14, lines 37-44);

an email server for collecting the email message (implicit: see col.7, lines 37-39 and col.19, lines 3-7); and

a command-formatter capable of translating the email message into a format that is understandable to a user at the user interface (see Fig.9).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wookey (US 6,085,244 A).

As per **claim 28**, which depends on claim 21, Wookey further teaches all the limitations including the criteria comprising:

a memory capacity of the network device dropping below a first threshold level (see col.17, lines 40-46); a detection of a software reload by the network device (see col.4, lines 31-36); and a detection of a failed interface on the network device (see col.7, lines 44-46).

Wookey does not explicitly teach criteria comprising: a percentage of call failures to or from the network device exceeding a second threshold level; a detection of a reduced quality of an interface on the network device; and a temperature of the network device exceeding a third threshold level.

However these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. The detecting criteria regarding the status of the network device would be performed regardless of the data. Thus this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ any criteria because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wookey (US 6,085,244 A) in view of Hripcsak (5,555,191 A).

As per **claim 3**, which depends on claim 1, Wookey does not explicitly teach wherein the first message comprises a fax transmission.

Hripcsak teaches wherein the first message comprises a fax transmission (see col.5, lines 7-10).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Wookey in view of Hripcsak so that the first message comprises a fax transmission. One would be motivated to do so because Wookey teaches that the communication may be via... any suitable communication link to provide diagnostic information from the monitored system to the monitoring system (see col.4, lines 14-17).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wookey (US 6,085,244 A) in view of Krishnamurthy et al. (UU 6,389,464 B1).

As per **claim 11**, which depends on claim 1, Wookey does not explicitly teach wherein at least one of the network devices comprises an access server.

Krishnamurthy teach wherein at least one of the network devices comprises an access server (see col.4, lines 20-26).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Wookey in view of Krishnamurthy so that

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the network devices comprises an access server. One would be motivated to do so because Wookey teaches that the network comprises the Internet (see col.4, lines 49-53).

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1, 2, 9, 12, 19, and 24-46 have been considered but are moot in view of the new ground(s) of rejection.

Based on the amendment and after further searching and consideration, Wookey (US 6,085,244 A) has been cited to better teach the invention. Hripcsak (5,555,191 A) has been cited to teach the missing limitation with respect to claim 3 and Krishnamurthy et al. (UU 6,389,464.B1) has been cited to teach the missing limitation with respect to claim 11.

10. For the reasons above claims 1-4, 8-13, 19-22, and 24-28 have been rejected and remain pending.

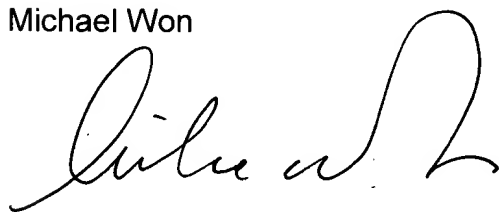
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Won

A handwritten signature in black ink, appearing to read 'Michael Won', with a large, stylized flourish at the end.

November 8, 2006